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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/607,518

06/26/2003

Wolfgang Spirk

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EXAMINER

TRIMMINGS, JOHN P

ART UNIT

PAPER NUMBER

2117

MAIL DATE

DELIVERY MODE

02/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/607,518	Applicant(s) SPIRKL ET AL.	
	Examiner JOHN P. TRIMMINGS	Art Unit 2117	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/26/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-14 are presented for examination.

Priority

1. The examiner acknowledges the applicant's claim of priority based on a foreign application.

Information Disclosure Statement

2. The examiner has considered the applicant's IDS dated 6/26/2003.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanazaki et al. (herein Tanazaki), US Patent No. 6762967 in view of Kang, US Patent No. 5299168.

As per claim 1:

Tanazaki teaches a method for checking the refresh function of a memory having a refresh device (see Abstract for example or Summary), which comprises: supplying a control unit (FIG. 1 101, 108, 109, 111) of the memory (FIG. 1 100) with refresh test

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pulses (FIG. 1 output of 101) produced outside the memory (FIG. 14 CLK) instead of supplying the control unit with the refresh request pulses (FIG. 14 300); and checking the refresh device of the memory utilizing the refresh test pulses (column 3 lines 50-59), but fails to further disclose determining if refresh request pulses are being produced on the memory and at what intervals of time the refresh request pulses are being produced on the memory. But in the analogous art of Kang, these features are taught where the complete cycle of addresses based on refresh pulses is verified as well as the "cycle time" of the refresh cycle (column 5 lines 58-64). And in column 2 lines 13-30, the advantage stated from Kang is a means of verifying the "cycle time" in a self-refresh memory as well as verifying that all refresh addresses were generated. One with ordinary skill in the art at the time of the invention, motivated as suggested, would have found it obvious to include the unique features of Kang (verifying cycle time and addressing) in the self-refresh test system of Tanazaki in order to provide an enhanced refresh diagnostic system for memories.

As per claim 2:

Kang further teaches the method according to claim 1, which further comprises controlling the checking of the refresh device with the control unit (column 5 lines 58-64). And in view of the motivation previously stated, the claim is rejected.

As per claim 3:

Tanazaki further teaches the method according to claim 1, which further comprises supplying the refresh test pulses and the refresh request pulses to a

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multiplex device (FIG. 14, select circuit 40). And in view of the motivation previously stated, the claim is rejected.

As per claim 4:

Tanazaki further teaches the method according to claim 2, which further comprises supplying the refresh test pulses and the refresh request pulses to a multiplex device (FIG. 14, select circuit 40). And in view of the motivation previously stated, the claim is rejected.

As per claim 5:

Tanazaki further teaches the method according to claim 1, which further comprises supplying the refresh test pulses and the refresh request pulses to the control unit through a multiplex device (FIG. 14, select circuit 40). And in view of the motivation previously stated, the claim is rejected.

As per claim 6:

Tanazaki further teaches the method according to claim 2, which further comprises supplying the refresh test pulses and the refresh request pulses to the control unit through a multiplex device (FIG. 14, select circuit 40). And in view of the motivation previously stated, the claim is rejected.

As per claim, 7:

Tanazaki further teaches the method according to claim 1, which further comprises: connecting a multiplex device (FIG. 14 40) to the control unit (the combined 101, 108, 109, 111 units of FIG. 1); and supplying the refresh test pulses and the

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refresh request pulses to the control unit through the multiplex device (see column 7 lines 29-44). And in view of the motivation previously stated, the claim is rejected.

As per claim 8:

Tanazaki further teaches the method according to claim 2, which further comprises: connecting a multiplex device to the control unit; and supplying the refresh test pulses and the refresh request pulses to the control unit through the multiplex device. (FIG. 14, select circuit 40). And in view of the motivation previously stated, the claim is rejected.

As per claim 9:

Tanazaki further teaches the method according to claim 3, which further comprises controlling the multiplex device with a test signal (FIG. 14 SPECIFIC SIGNAL, as in column 7 lines 39-40). And in view of the motivation previously stated, the claim is rejected.

As per claim 10:

Tanazaki further teaches the method according to claim 4, which further comprises controlling the multiplex device with a test signal (FIG. 14 SPECIFIC SIGNAL, as in column 7 lines 39-40). And in view of the motivation previously stated, the claim is rejected.

As per claim 11:

Tanazaki further teaches the method according to claim 5, which further comprises controlling the multiplex device with a test signal (FIG. 14 SPECIFIC

SIGNAL, as in column 7 lines 39-40). And in view of the motivation previously stated, the claim is rejected.

As per claim 12:

Tanazaki further teaches the method according to claim 6, which further comprises controlling the multiplex device with a test signal (FIG. 14 SPECIFIC SIGNAL, as in column 7 lines 39-40). And in view of the motivation previously stated, the claim is rejected.

As per claim 13:

Tanazaki further teaches the method according to claim 7, which further comprises controlling the multiplex device with a test signal (FIG. 14 SPECIFIC SIGNAL, as in column 7 lines 39-40). And in view of the motivation previously stated, the claim is rejected.

As per claim 14:

Tanazaki further teaches the method according to claim 8, which further comprises controlling the multiplex device with a test signal (FIG. 14 SPECIFIC SIGNAL, as in column 7 lines 39-40). And in view of the motivation previously stated, the claim is rejected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN P. TRIMMINGS whose telephone number is

(571)272-3830. The examiner can normally be reached on Monday through Thursday, 7:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John P Trimmings/
Primary Examiner,
Art Unit 2117

jpt